

From: [Jessica Winter](#)  
To: [Chip.Humphrey/R10/USEPA/US@EPA](#)  
Subject: Re: Feedback on LWG MNR presentation Feb 23rd  
Date: 02/28/2011 03:33 PM

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Chip- Below are the comments I sent earlier with a few edits.

I also thought there were some very good points raised at the meeting, including:

- Depending on how locations for sediment traps were chosen, estimated sedimentation rates may be biased high relative to average site conditions.
- Note that in slide 46, east side traps are typically higher than west side, indicating that sources other than upstream (e.g. lateral sources like storm drains & CSOs) are important to consider in the model
- The model looks at the "current-case" scenario for stormwater inputs; may want to get some estimates of possible source control reductions in stormwater loading and include that in the model, perhaps as a sensitivity run.

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1. Slide 7 names identification and characterization of ongoing sources as a data need for predicting MNR and states that LWG is using the RI report source table for this. I think this needs to look at future predicted sources and I'm not sure what type of data the RI would have on this, but I assume all their data is on past releases. We need to look at what input concentrations are likely to be given that source control may reduce or eliminate some ongoing sources. The reason I think this is important is that on the Duwamish, LDWG referred to the model to say "long term, even if we dredge the whole river and fill with clean material, there will be recontamination to x ppb from y and z sources, therefore, cleaning up below x ppb is a waste of effort and we should use MNR for areas under x ppb." So if that's the argument, we want to know that x is an accurate estimate of the concentration, and including historic or current discharges that have stopped or will be stopped in the near future will bias it high. Slides 70 & 73 say that other loading assumptions may be modeled. I think this is necessary.
2. Slide 13 shows *laterally averaged* data on sedimentation rates. This is not very relevant- the nearshore sedimentation is significantly different from the channel sedimentation (as shown in Slides 12 and 14 and 15) and I assume most of the contamination is near shore. Therefore, in the FS, an area of the river should not be proposed for MNR based on cross-channel averages, but on laterally differentiated data.
3. Slide 27 is mathematically disconcerting- since ratios of (positive) concentrations can't be negative, I initially thought the vertical scale was showing logarithms. But for slide 28, logarithms don't seem right because I really don't think they can measure DDx concentrations over 35 orders of magnitude, so these are actual ratios of concentrations, but the ones that increase with depth have been flipped upside down. The space between -1 and 1 on this chart is misleading since it can't be occupied, and the caption on the vertical scale is wrong for the "negative" values. These slides should be modified to accurately correspond to the mathematical definitions being used.
4. Slide 33 - Note that the sediment samples used to evaluate temporal trends specifically exclude nearshore data because it could be confounded by nearshore sources. Since we saw in slides 12-15 that sedimentation is

significantly different in the nearshore vs the channel, any trends identified with this limited dataset cannot be extrapolated to the nearshore.

5. Slide 44 - It is unclear to me why we are comparing incoming sediment chemistry to bed chemistry *in AOPCs* if the AOPCs are the more heavily contaminated areas (i.e. places where we will likely require active remediation, NOT MNR. In those areas, even if the incoming concentration is low, the existing bed concentration is not enough that we need to get it out soon, not wait for natural recovery). If some of the AOPCs have lower concentrations such that MNR would be considered, those should be identified, and this analysis should focus on them and on the "in between" areas that are not part of any AOPCs.
6. Slide 115- On the topic of including an active construction period before running the MNR model- on Duwamish, EPA instructed them to model MNR during active construction because they were concerned that not doing so would artificially inflate cleanup footprints and costs for the FS. For example, there may be some areas of the river that are currently slightly above cleanup standard concentrations and would merit active cleanup based on current concentrations, but would not be done until 5-10 years down the road, because the hotter spots would be prioritized first, or because of their location in the river. After 10 years of MNR, these areas might no longer need active dredging, so to include them in the FS makes that particular remedial alternative look artificially expensive and therefore less likely to be selected. To be realistic, the model should actually start now, or at the time of the last data point used for bed chemistry, rather than waiting.

Jessica Winter  
NOAA Office of Response and Restoration  
7600 Sand Point Way, Bldg 4, Room 2117A  
Seattle, WA 98115  
Office phone (206) 526-4540  
Cell phone (206) 375-5254  
Fax (206) 526-6865  
[jessica.winter@noaa.gov](mailto:jessica.winter@noaa.gov)

On 2/28/2011 3:09 PM, [Humphrey.Chip@epamail.epa.gov](mailto:Humphrey.Chip@epamail.epa.gov) wrote:

As a follow-up to last week's meeting, please provide any feedback on the LWG's MNR presentation to us by the end of this week. We won't be "approving" the presentation, but if you have comments/observations we'd like to pull those together to send to the LWG for consideration as they move forward with the FS evaluations.

thanks  
Chip